

Attorney Docket No. 44342.023000

In the claims

1. (Previously Amended) A process for producing PNPase, comprising at least the following steps:

- (A) constructing an expression vector comprising a prokaryote-derived PNPase gene integrated into a plasmid having a T7 promoter as an expression-regulating signal;
- (B) transforming *Escherichia coli* or its analogous bacteria having a T7 RNA polymerase gene using the expression vector;
- (C) allowing the resulting transformant to express the PNPase gene thereby accumulating PNPase in the bacteria; and
- (D) recovering the bacteria having PNPase accumulated therein, and extracting and purifying the PNPase.

2. (Previously Amended) The process according to claim 1, wherein the steps (C) and (D) are the following steps (C') and (D') respectively:

- (C') allowing the transformant to express the PNPase gene thereby accumulating PNPase in the bacteria, and further continuing to allow expression until the bacteria is disrupted to release the PNPase into a supernatant outside of the bacteria; and
- (D') recovering and purifying the PNPase released in the supernatant.

3. (Previously Amended) The process according to claim 1, wherein the plasmid has a tag gene capable of adding a tag to the PNPase to be produced.

4. (Previously Presented) The process according to claim 3, wherein the tag gene is a His tag gene, T7 tag gene, S tag gene, Nus tag gene, GST tag gene, DsbA tag gene, DsbC tag gene, CBD<sub>cex</sub> tag gene, CBD<sub>cenA</sub> tag gene, CBD<sub>clos</sub> tag gene, Trx tag gene, HSV tag gene, or 3×FLAG tag gene.

**Attorney Docket No. 44342.023000**

5. (Previously Amended) The process according to any one of claims 1 to 4, 11 or 12, wherein the prokaryote is *Escherichia coli*.

6. (Previously Presented) The process according to claim 5, wherein the *Escherichia coli* is *Escherichia coli* K12 or *Escherichia coli* O157.

7. (Previously Amended) The process according to claim 1, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

8. (Previously Cancelled)

9. (Previously Cancelled)

10. (Cancelled)

11. (Previously Presented) The process according to claim 2, wherein the plasmid has a tag gene capable of adding a tag to the PNase to be produced.

12. (Previously Presented) The process according to claim 11, wherein the tag gene is a His tag gene, T7 tag gene, S tag gene, Nus tag gene, GST tag gene, DsbA tag gene, DsbC tag gene, CBD<sub>ccx</sub> tag gene, CBD<sub>cenA</sub> tag gene, CBD<sub>clos</sub> tag gene, Trx tag gene, HSV tag gene, or 3×FLAG tag gene.

13. (Previously Presented) The process according to claim 2, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

14. (Previously Presented) The process according to claim 3, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21

**Attorney Docket No. 44342.023000**

[DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

15. (Previously Presented) The process according to claim 4, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

16. (Previously Presented) The process according to claim 5, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

17. (Previously Presented) The process according to claim 6, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

18. (Previously Presented) The process according to claim 11, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

19. (Previously Presented) The process according to claim 12, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].